P24208.S02

ABSTRACT OF THE DISCLOSURE

A processor of a transceiver estimates a communication distance to an opposing

5   ADSL modem apparatus by detecting a reception level of a communication distance
detecting signal in accordance during an initialization sequence with the ITU-T regulated
G.992.1 or G. 992.2. The communication distance detecting signal is used to detect a
communication distance to an opposing ADSL modem apparatus and has comb-shaped
frequency characteristics. Based on the estimated communication distance, and by

10   referring to a table showing attenuation of signal energy (stored in a RAM), the signal
energy in a high frequency band (among the signal energy assigned to transmitting
signals) is concentrated into a low frequency band during the communication.